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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/705,367	11/03/2000	Wade J. Doll	901115.434	7548

7590

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EXAMINER

LEO, LEONARD R

ART UNIT

PAPER NUMBER

3743

DATE MAILED: 03/12/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/705,367

Applicant(s)

DOLL, WADE J.

Examiner

Leonard R. Leo

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 27 December 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-22 and 29-442 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11, 15, 17-22, 29-33 and 35-42 is/are rejected.
- 7) ☒ Claim(s) 12-14, 16 and 34 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

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## **DETAILED ACTION**

### ***Election/Restrictions***

Applicant's election of the invention of Group I in Paper No. 5 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Claims 23-28 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. However, claims 23-28 have been cancelled.

### ***Drawings***

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "fin being laterally straight" in claim 5 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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Claims 21-22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 21 recites the limitation "the conduit chamber" in line 1. There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 and 4 are rejected under 35 U.S.C. 102(b) as being anticipated by Schmidt. The recitation of "for a semiconductor chip" is considered to be a statement of intended use, even if claimed, does not merit patentable weight unless the body of the claim refers back to, is defined by, or otherwise draws life and breadth from such intended use. *Ex parte Masham*, 2 USPQ2d 1647 (1987).

Claims 1-2, 15, 17, 29-30, 36 and 38-41 are rejected under 35 U.S.C. 102(b) as being anticipated by Engel et al. The recitation of "for a semiconductor chip" is considered to be a statement of intended use, even if claimed, does not merit patentable weight unless the body of the claim refers back to, is defined by, or otherwise draws life and breadth from such intended use. *Ex parte Masham*, 2 USPQ2d 1647 (1987).

Claims 1-4, 6, 17-22, 29-33 and 35-42 are rejected under 35 U.S.C. 102(b) as being anticipated by Turner. The recitation of "for a semiconductor chip" is considered to be a statement of intended use, even if claimed, does not merit patentable weight unless the body of

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the claim refers back to, is defined by, or otherwise draws life and breadth from such intended use. *Ex parte Masham*, 2 USPQ2d 1647 (1987).

Claims 1-4, 6-9, 15 and 17-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Opitz et al (column 3, lines 3-13). It has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ2d 1647 (1987). In this instance, the functional recitations of an "inlet" and "outlet" are not structural limitations associated with the "aperture." Regarding claim 20, the inlet and outlet are inherently connected to conduits.

Claims 1-2, 4, 10, 17-18, 29-30, 36 and 38-42 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Little.

Claims 1-2, 15, 29-30, 36, 38-42 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Iversen et al.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5 and 10-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Opitz et al in view of Kodama et al.

Opitz et al discloses all the claimed limitations except straight fins.

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Kodama et al discloses a heat exchanger (Figures 5-7) comprising a heat conducting surface 122 and a plurality of straight fins F1-F60 arranged in a spiral pattern for the purpose of improving heat exchange efficiency.

Since Opitz et al and Kodama et al are both from the same field of endeavor and/or analogous art, the purpose disclosed by Kodama et al would have been recognized in the pertinent art of Opitz et al.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Opitz et al a plurality of straight fins arranged in a spiral pattern for the purpose of improving heat exchange efficiency as recognized by Kodama et al.

Claim 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Little in view of Kodama et al.

Little discloses all the claimed limitations except fins in a spiral pattern.

Kodama et al discloses a heat exchanger (Figures 5-7) comprising a heat conducting surface 122 and a plurality of straight fins F1-F60 arranged in a spiral pattern for the purpose of improving heat exchange efficiency.

Since Little and Kodama et al are both from the same field of endeavor and/or analogous art, the purpose disclosed by Kodama et al would have been recognized in the pertinent art of Little.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Little fins arranged in a spiral pattern for the purpose of improving heat exchange efficiency as recognized by Kodama et al.

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*Allowable Subject Matter*

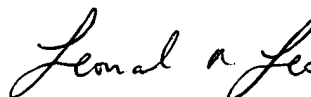
Claims 12-14, 16 and 34 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

*Conclusion*

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry of a general nature, relating to the status of this application or clerical nature (i.e. missing or incomplete references, missing or incomplete Office actions or forms) should be directed to the Technology Center 3700 Customer Service whose telephone number is (703) 306-5648.

Any inquiry concerning this Office action should be directed to Leonard R. Leo whose telephone number is (703) 308-2611.



LEONARD R. LEO  
PRIMARY EXAMINER  
ART UNIT 3743

March 6, 2002